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CNL Assignment - 10

Q.1. Explain details about protocol required for chat.

→ communication is one of most important things for today's generation. Chat conferencing is type of Internet communication. Online chats on Internet include texting, sharing vids, img, files, docs etc.

- Few chat protocols are listed below:

1) IRC (internet relay chat)
- Introduced is 1998
- Text based conferencing protocol
- Used for group chatting on channels also known as chat rooms.
- C_2 server or command & control server are IRC servers that contain channels.
- TCP sockets are used for connecting.
- IRC operators (IRCops) are used to manage servers.

2) XMPP (extensible Messaging & Presence Protocol)
- Developed by Jabbar open-source community.
- Real time messaging system.
- TCP/IP, HTTP or webSocket are used for connecting.
- Some applications can be Gtalk & whatsapp.
- Features such as publish/subscribe, authentication & its security uses to implement IOT.

Q.2. Explain different function in UDP.

→ 1> UDP is connectionless:

Data transport via UDP is characterised by fact that it takes place without an existing connection between addresses & recipient. Respective packets are sent to preferred IP address, specifying the target port, without computer behind them having to respond.

2> UDP uses ports:

Like TCP, UDP uses ports so the packets are transferred to correct subsequent protocols or desired applications on target system. Ports are defined by numbers according to the proven pattern, with numbers from 0 to 1023 assigned to fixed servi

3> UDP enables fast, delay free communication:

The transport protocol is suitable for fast data transmission due to lack of connection setup. This also results to loss of individual packets only affects quality of transmission.

With TCP connections, lost of packets, are automatically re-requested, causing the entire transmission process to come to standstill.

4> UDP does not guarantee the security of data:

The absence of mutual authentic between address & recipient ensures excellent transmission speed in UDP. However, protocol cannot guarantee the securit of data packets also correct sequence of send packe is also not guaranteed. For this reason, services that use UDP must provide their own measures for correction or protection.

Q.3. Explain UDP header?

→ UDP header:

The purpose of using pseudo header is to verify that UDP packet has reached its correct destination. The correct destination consists of a specific machine & specific protocol port number within machine.

UDP header itself provides specifies only protocol port number. Thus, verify the destination, UDP on sending machine computer a checksum that covers destinatn IP address as well as UDP packet.

If checksum agrees, then it must be true that packet has reached to intended destination host as well as correct protocol port within that host.